

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (Currently amended) A method for promoting central nervous system axon growth in a patient in need of axon regeneration comprising administering to the patient a composition containing an effective amount of:
 - a) at least one ribosylating compound capable of ADP-ribosylating rho protein inhibitor in amounts effective to inhibit rho or rac and stimulate neurite outgrowth;
 - b) at least one blocking compound capable of physically interacting with rho or rac or an associated kinase and inhibiting complex formation; or
 - c) at least one inhibiting compound capable of physically interacting with a complex comprising rho or rac and an associated kinase and inhibiting the kinase activity of said complex.
2. (Currently amended) A The method according to claim 1 wherein the patient is treated by mechanical introduction of ~~rho protein inhibitor~~ the ribosylating compound or the blocking compound to the axons or their non-neuronal support tissue.
3. (Canceled).
4. (Canceled).
5. (Canceled).
6. (Currently amended) A The method according to claim 1 wherein the ~~inhibitor~~ ribosylating compound or the blocking compound inhibits a rac protein.
7. (Currently amended) A The method according to claims 1, 2, ~~3, 4,~~ or ~~5~~ 6 wherein the ~~inhibitor~~ ribosylating compound is *C. botulinum* C3 exoenzyme.
8. (Currently amended) A The method according to claim 1 wherein the ~~rho protein inhibitor~~ ribosylating compound is a chimeric *C. botulinum* C2/C3 exoenzyme construct having the actin ADP-ribosylation activity deleted from the C2 toxin and the C3 exoenzyme activity substituted therefor, so that the construct ADP-ribosylates rho specifically and inactivates the G protein.
9. (Currently amended) A The method according to claim 1 wherein the patient suffers

from acute or chronic spinal cord injury.

10. (Currently amended) ~~A~~ The method according to claim 1 wherein the patient is suffering from traumatic brain injury.

11. (Currently amended) ~~A~~ The method according to claim 1 wherein the patient suffers from acute or chronic spinal cord injury.

12. (Canceled) A pharmaceutical composition for treatment of central nervous system injury comprising a rho protein inhibitor in a pharmaceutically acceptable carrier.

13. (Currently amended) ~~A~~ The method according to claim ~~1~~ 12 ~~which comprises wherein the ribosylating compound is a molecule with the ADP-ribosylation activity of a C. botulinum C3 exoenzyme.~~

14. (Canceled).

15. (Canceled).

16. (Canceled).

17. (Currently amended) ~~A~~ The method according to claim ~~12~~ 13 wherein the composition comprises a chimeric C2/C3 C. botulinum exoenzyme ~~construct~~ construct having the actin ADP-ribosylation activity deleted from the C2 toxin and the C3 exoenzyme activity substituted ~~therefor~~ therefore, so that the construct ADP-ribosylates rho specifically and inactivates the G protein.

18. (Canceled).

19. (Canceled).

20. (Canceled).

21. (Currently amended) ~~A~~ The method according to claim ~~1~~ wherein the ~~protein is~~ composition comprises a rho protein.

22. (Currently amended) ~~A~~ The method according to claim 1 wherein the ~~inhibitor~~ composition inhibits both a rac protein and a rho protein.

23. (Currently amended) ~~A~~ The method according to claim 1 wherein the ~~inhibitor is~~ composition comprises a C. botulinum C3 inhibitor.

24. (Currently amended) ~~A~~ The method according to claim 12 wherein the ~~inhibitor is~~ composition comprises C. botulinum C3 exoenzyme.

25. (Currently amended) A The method according to claim 12 wherein the ~~inhibitor~~ composition inhibits a rac protein.
26. (Currently amended) A The method according to claim 12 wherein the ~~inhibitor~~ composition inhibits a rho protein.
27. (Currently amended) A The method according to claim 12 wherein the ~~inhibitor~~ composition inhibits both a rac protein and a rho protein.
28. (Currently amended) A method for promoting central nervous system axon growth in a patient in need of axon regeneration comprising administering to the patient an effective amount of a compound with the ADP-ribosylation activity of C. botulinum C3 exoenzyme.
29. (Currently amended) A The method according to claim 28 wherein the ~~C. botulinum C3 inhibitor~~ compound is C3 exoenzyme.
30. (Currently amended) A The method according to claim 28 wherein the ~~composition~~ comprises compound with the ADP-ribosylation activity is a chimeric C2/C3 C. botulinum exoenzyme ~~construct~~ construct having the actin ADP-ribosylation activity deleted from the C2 toxin and the C3 exoenzyme activity substituted therefor, ~~so that the construct ADP-ribosylates rho specifically and inactivates the G protein.~~
31. (New) A method for inhibiting a rho or rac dependent kinase activity, the method comprising:
- a) contacting rho or rac with a compound capable of ADP-ribosylating rho or rac; or
 - b) contacting a complex comprising rho or rac and an associated kinase with a compound capable of inhibiting the kinase activity of said complex.
32. (New) The method according to claim 1, wherein the blocking compound is an antibody directed against rho, rac an associating kinase.